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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,247	05/02/2005	Martin Mosquet	97723.00047	5104

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EXAMINER

COHEN, STEFANIE J

ART UNIT	PAPER NUMBER
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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/510,247	Applicant(s) MOSQUET ET AL.	
	Examiner STEFANIE COHEN	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scarborough et al (5338345), as evidenced by ICSC 1380.

Scarborough, table 1 composition 4, teaches a water based water repellent coating comprising water, paraffinic wax and a solvent. Scarborough, col. 6 lines 37-41, teaches the solvent can be naphtha which is a hydrocarbon oil. Scarborough, col. 5 lines 45-53, teaches the paraffin waxes generally contain about 14 different straight chain and branched hydrocarbons ranging from C₁₈H₃₈ to C₃₂H₆₆.having melting points in the range of 50-70oC. These waxes are saturated aliphatic hydrocarbons with the general formula C_nH_{2n}.

Although Scarborough teaches using naphtha as an organic solvent, it does not teach the properties of naphtha.

Naptha, ICSC 1380, teaches naphtha has a melting point at 0oC which means that naphtha is liquid a room temperature. Further, ICSC 1380, teaches naphtha is a

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mixture of C9-C13 naphthenes. Naphtha is of naphthenic origin with the general formula C_nH_{2n} .

Further, by providing the solvent as naphtha, a hydrocarbon oil of naphthenic origin of the claimed general formula and that is a liquid at room temperature is obviously provided.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarborough et al (5338345) as evidenced by ICSC 1380 as applied to claim 1 and further in view of Nielsen (5100697).

Scarborough, table 1 composition 4, teaches a water based water repellent coating comprising water, paraffinic wax and a solvent. Scarborough, col. 6 lines 37-41, teaches the solvent can be naphtha which is a hydrocarbon oil. Scarborough, col. 5 lines 45-53, teaches the paraffin waxes generally contain about 14 different straight chain and branched hydrocarbons ranging from $C_{18}H_{38}$ to $C_{32}H_{66}$. having melting points in the range of 50-70°C. These waxes are saturated aliphatic hydrocarbons with the general formula C_nH_{2n} .

Although Scarborough teaches using naphtha as an organic solvent, it does not teach the properties of naphtha.

Naphtha, ICSC 1380, teaches naphtha has a melting point at 0°C which means that naphtha is liquid at room temperature. Further, ICSC 1380, teaches naphtha is a mixture of C9-C13 naphthenes. Naphtha is of naphthenic origin with the general formula C_nH_{2n} .

Further, by providing the solvent as naphtha, a hydrocarbon oil of naphthenic origin of the claimed general formula and is a liquid at room temperature is obviously provided.

Although Scarborough in view of ICSC 1380 teaches using a water based water repellent coating comprising water, paraffinic wax and a solvent such as naphtha, neither teaches using an oil formed from an ester resulting from a reaction of a fatty acid and an alcohol.

Niesel teaches an oil in water emulsion comprising esters of aliphatic carboxylic acid with a mono or dihydric alcohol.

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute some or all of ester as taught by Niesel in for the hydrocarbon oil solvent as taught by Scarborough because Niesel, col. 8 lines 5-10, teaches esters of carboxylic acids are much more biodegradable and less toxic than mineral oils such as naphtha. Further, Niesel, col. 9 lines 9-15, teaches the esters maybe derived from an aliphatic monocarboxylic acid of the formula R_4COOH in which R_4 is a straight or branched saturated or unsaturated hydrocarbyl group of 1-30 carbon atoms.

Although Scarborough teaches a water based water repellent, Scarborough does not teach the repellent to retain water during the setting of concrete.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the Scarborough composition would be able to retain water because if the composition is waterproof it would mean that no water could seek through this layer.

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Therefore, if no water could seep through that would be no water would be able to leave therefore retain the water in the composition.

Regarding claims 2 and 3, Scarborough, col. 5 lines 37-40, teaches the water repellant composition can include natural and synthetic waxes. Scarborough, col. 5 lines 45-53, teaches the paraffin waxes generally contain about 14 different straight chain and branched hydrocarbons ranging from $C_{18}H_{38}$ to $C_{32}H_{66}$. having melting points in the range of 50-70°C. These waxes are saturated aliphatic hydrocarbons with the general formula C_nH_{2n} .

Regarding claim 4, the density of the paraffin wax is an inherent characteristic and therefore does not further limit the claim.

Regarding claim 5, ICSC 1380, teaches naphtha is a mixture of C9-C13 naphthenes. Naphtha is of naphthenic origin with the general formula C_nH_{2n} .

Regarding claim 6, ICSC 1380, teaches naphtha to have a density of .76-.79 g/cm³.

It would have been obvious to one of ordinary skill in the art at the time of the invention by increasing the amount of C9 naphthenes present. Therefore, more naphthenes would be present in each cm³. This would increase improve the dispersity of the wax in the solvent.

Regarding claims 8 and 9, Niesel, col. 9 lines 9-21 teaches an oil in water emulsion comprising esters of aliphatic carboxylic acid such as palmitic acid.

Regarding claims 10 and 11, Niesel, col. 8 lines 65-68, teaches an oil in water emulsion comprising esters of aliphatic carboxylic acid with a mono or dihydric alcohol such as butanol.

Regarding claim 12, Scarborough, table 1 composition 4, teaches paraffinic wax present in the mixture in the amount of 2.5% and the hydrocarbon oil present in the amount of 1%. It would have been obvious to one of ordinary skill in the art at the time of the invention to increase the amount of hydrocarbon oil present in the mixture to ensure all of the paraffinic wax is uniformly dissolved. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute some or all of ester as taught by Niesel in for the hydrocarbon oil solvent as taught by Scarborough as evidenced by ICSC 1380 because Niesel, col. 8 lines 5-10, teaches esters of carboxylic acids are much more biodegradable and less toxic than mineral oils such as naphtha. Further, Niesel, col. 9 lines 9-15, teaches the esters maybe derived from an aliphatic monocarboxylic acid of the formula R_4COOH in which R_4 is a straight or branched saturated or unsaturated hydrocarbyl group of 1-30 carbon atoms.

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Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the amount of ester present in the mixture to ensure all of the paraffinic wax is uniformly dissolved.

Regarding claims 13 and 14, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the weight ratio and dry matter content of the hydrocarbon oil, the ester oil and the paraffin wax to obtain maximum water retention and waterproof properties of a material.

Regarding claim 15, Scarborough teaches dissolving the paraffin wax in a petroleum distillate solvent such as naphtha. This was introduced into a water solution and stirred vigorously. It would have been obvious to one of ordinary skill in the art at the time of the invention that the components can be added in any order to obtain the desired final product.

Regarding claim 16, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the weight deposited per unit area to ensure maximum water retention of a material while minimizing the amount of weight deposited per surface area.

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Regarding claim 17, Scarborough, col. 5 lines 27-35, teaches composition which are normally solids can be dissolved in an organic solvent to form the necessary liquid for the formation of an emulsion with water.

It would have been obvious to one of ordinary skill in the art at the time of the invention if the wax was in solid (powdered form) to disperse the wax in the solvent with heat to allow the wax to melt and uniformly disperse throughout the solvent.

Regarding claim 18, Scarborough, col. 5 lines 27-35, teaches composition which are normally solids can be dissolved in an organic solvent to form the necessary liquid for the formation of an emulsion with water.

It would have been obvious to one of ordinary skill in the art at the time of the invention that water could be partially substituted in for the solvent of the paraffin wax as long as the wax would be evenly dispersed throughout the mixture.

Regarding claim 19, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize to optimize the weight ratio content of the hydrocarbon oil, the ester oil and the paraffin wax to obtain maximum water retention and waterproof properties of a material.

Response to Arguments

Applicant's arguments, filed 12/1/2008, with respect to the rejection(s) of claim(s) 1-16 under Boehme, Colson, Ando and Kuroda, have been fully considered and are

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persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Scarborough, ICSC 1380 and Nielsen.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEFANIE COHEN whose telephone number is (571)270-5836. The examiner can normally be reached on Monday through Thursday 9:3am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 5712721234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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Stefanie Cohen

2/9/2009

SC

February 15, 2009

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793